

LISTING OF THE CLAIMS

► The following listing of claims replaces all prior listing of claims in the application:

Claim 1 (original): An apparatus for providing backlight illumination of an image, said apparatus comprising:

- a glass substrate having a front surface and a rear surface,
- an opaque border adhered to said rear surface, said opaque border having an inside aperture whereby a selected portion of the image is illuminated;
- a plurality of conductive traces adhered to said opaque border;
- at least one light emitting device adhered to said rear surface, each of said at least one light emitting device in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces and said at least one light emitting device forming an illumination circuit;
- a means for supplying power to said illumination circuit;
- a sheet proximal said front surface of said substrate, said sheet including the image to be illuminated; and
- a back board having a reflector, said back board positioned proximal to and separated from said rear surface of said substrate, said reflector on a surface of said back board proximal said rear surface.

Claim 2 (original): The apparatus of Claim 1 further including a dropping resistor adhered to said opaque border, wherein said at least one light emitting device includes at least one light emitting diode, said dropping resistor in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces, said at least one light emitting device, and said dropping resistor forming said illumination circuit.

Claim 3 (original): The apparatus of Claim 2 wherein said dropping resistor is formed from a resistive polymer thick film ink.

Claim 4 (original): The apparatus of Claim 2 wherein said dropping resistor is a surface mount component having a selected resistance.

Claim 5 (original): The apparatus of Claim 1 wherein said plurality of conductive traces are formed of a conductive polymer thick film ink.

Claim 6 (original): The apparatus of Claim 1 further including a plurality of spacers separating said back board from said rear surface.

Claim 7 (original): The apparatus of Claim 1 further including a light barrier between said back board and said rear surface.

Claim 8 (original): The apparatus of Claim 1 further including a frame in which said substrate, said sheet, and said back board are secured, said frame having an opening for viewing the image.

Claim 9 (original): The apparatus of Claim 1 wherein said means for supplying power includes a power connector adhered to said substrate, said power connector in electrical connection with a pair of said plurality of conductive traces.

Claim 10 (original): The apparatus of Claim 1 wherein said means for supplying power includes a battery holder adhered to said substrate, said battery holder in electrical connection with a pair of said plurality of conductive traces.

Claim 11 (previously amended): An apparatus for providing backlight illumination of an image, said apparatus comprising:

a substrate having a front surface and a rear surface,
an opaque border adhered to said rear surface, said opaque border having an inside aperture whereby a selected portion of the image is illuminated,

a plurality of conductive traces adhered to said rear surface, said plurality of conductive traces formed of a conductive polymer thick film ink; and

at least one light emitting device adhered to said rear surface, each of said at least one light emitting device in electrical connection with at least a pair of said plurality of conductive traces, said plurality of conductive traces and said at least one light emitting device forming an illumination circuit.

Claim 12 (original): The apparatus of Claim 11 further including a dropping resistor adhered to said opaque border, wherein said at least one light emitting device includes at least one light emitting diode, said dropping resistor in electrical connection with at least a pair of said plurality of conductive traces, and said plurality of conductive traces, said at least one light emitting device, and said dropping resistor forming said illumination circuit.

Claim 13 (previously amended): The apparatus of Claim 11 wherein said substrate is formed of glass, and said opaque border is positioned between said substrate and said plurality of conductive traces.

Claim 14 (original): The apparatus of Claim 11 further including a means for supplying power to said illumination circuit.

Claim 15 (original): The apparatus of Claim 11 further including a power connector adhered to said substrate, said power connector in electrical connection with a pair of said plurality of conductive traces.

Claim 16 (original): The apparatus of Claim 11 further including a battery holder adhered to said substrate, said battery holder in electrical connection with a pair of said plurality of conductive traces.

Claim 17 (original): The apparatus of Claim 11 further including a sheet proximal said front surface of said substrate, said sheet including the image to be illuminated.

Claim 18 (original): The apparatus of Claim 11 further including a back board, said back board positioned proximal to and separated from said rear surface of said substrate.

Claim 19 (original): The apparatus of Claim 18 further including a plurality of spacers separating said back board from said rear surface.

Claim 20 (original): The apparatus of Claim 18 further including a reflector on a surface of said back board proximal said rear surface.

Claim 21 (original): The apparatus of Claim 18 further including a light barrier between said back board and said rear surface.

Claim 22 (previously amended): The apparatus of Claim 11 further including a sheet proximal said front surface of said substrate, said sheet having the image to be illuminated and a back board having a reflector, said back board positioned proximal to and separated from said rear surface of said substrate.

Claim 23 (original): The apparatus of Claim 22 further including a frame in which said substrate, said sheet, and said back board are secured, said frame having an opening for viewing the image.

Claim 24 (previously amended): An apparatus for providing backlight illumination of an image, said apparatus comprising:

a means for forming an illumination circuit on a substrate;

a means for supplying power to said illumination circuit; and

a means for backlighting the image, and;
a means for blocking a front view of said illumination circuit.

Claim 25 (cancelled)

Claim 26 (previously amended): A method of providing backlight illumination of an image with an illumination circuit formed on a substrate, said method comprising the steps of:

- (a) applying an opaque border to said surface of the substrate;
- (b) thereafter applying a conductive polymer thick film ink to a plurality of selected portions of a surface of the substrate, said conductive polymer thick film ink forming a plurality of conductive traces;
- (c) applying at least one light emitting device to at least one selected portion of said surface, said at least one light emitting device positioned such that each of a pair of terminals is in contact with said conductive polymer thick film ink; and
- (d) curing said conductive polymer thick film ink.

Claim 27 (cancelled)

Claim 28 (previously amended): The method of Claim 26 further including applying an adhesive to said at least one selected portion of said surface, said step of applying said adhesive performed before said step (b) of applying said at least one light emitting device.

Claim 29 (previously amended): The method of Claim 26 further including applying a dropping resistor to said substrate, said dropping resistor positioned such that each of a pair of terminals is in contact with said conductive polymer thick film ink.

Claim 30 (previously amended): The method of Claim 29 wherein said dropping resistor is a surface mount resistor.

Claim 31 (previously amended): The method of Claim 29 wherein said dropping resistor is a resistive polymer thick film ink applied to a selected region of the glass substrate with said resistive polymer thick film ink bridging a gap between two of said plurality of conductive traces.

Claim 32 (previously amended): The method of Claim 26 further including applying a power connector to the glass substrate, said power connector having a pair of terminals in contact with said conductive polymer thick film ink.

Claim 33 (previously amended): The method of Claim 26 further including applying a battery holder to the glass substrate, said battery holder having a pair of terminals in contact with said conductive polymer thick film ink.